Amendments to the Claims:

This listing of the claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 (Previously Presented). A fused chimeric protein comprising a linear genetically engineered molecule consisting essentially of peptide bonds, produced by fusing, at the level of cDNA:

A. DNA encoding at least one cell targeting moiety consisting essentially of Met-GnRH or a Met-GnRH analog that specifically binds to GnRH binding sites on Caco2 adenocarcinoma cells; and

B. DNA encoding at least one cell killing moiety.

2 (Cancelled)

3 (Previously Presented). A fused chimeric protein according to claim 1, produced by fusing at the cDNA level an oligonucleotide encoding gonadotropin releasing hormone (GnRH) or a GnRH analog, preceded by a Met, to a mutated DNA fragment of the full length *Pseudomonas* exotoxin (PE), encoding the protein Met-GnRH-PE66.

4 (Previously Presented). A fused chimeric protein according to claim 1, produced by fusing at the cDNA level an oligonucleotide encoding gonadotropin releasing hormone (GnRH) or a GnRH analog, preceded by a Met, to a DNA fragment

comprising domains II and III of the *Pseudomonas* exotoxin (PE), encoding the protein Met-GnRH-PE40.

5 (Previously Presented). A method for the production of a chimeric protein as defined in claim 3, comprising ligating an oligonucleotide encoding gonadotropin releasing hormone (GnRH) or a GnRH analog, preceded by a Met, upstream of a DNA fragment encoding a mutated form of PE, under conditions sufficient to produce a chimeric protein comprising Met-GnRH-PE66.

6 (Previously Presented). A method for the production of a chimeric protein as defined in claim 4 that targets adenocarcinoma cells, comprising ligating an oligonucleotide encoding gonadotropin releasing hormone (GnRH) or a GnRH analog, preceded by a Met, upstream to a DNA fragment encoding domains II and III of the PE, under conditions sufficient to produce a chimeric protein comprising Met-GnRH-PE40.

7 (Previously Presented). A composition useful for treatment in cancer therapy comprising as active ingredient, a chimeric protein as defined in claim 1.

8 (Canceled).

9 (Previously Presented). A method for the treatment of adenocarcinoma or hepatocarcinoma in a mammal, comprising administering to the body of a mammal in need of such therapy an effective amount of at least one chimeric

protein as defined in claim 1, sufficient to at least reduce the growth of said adenocarcinoma or hepatocarcinoma.

10 (Previously Presented). A method for adenocarcinoma or hepatocarcinoma therapy according to claim 9, wherein said administering step is by systemic administration of said chimeric protein.

11-20 (Cancelled)

21 (Previously Presented). A plasmid comprising a promoter operably linked to a DNA molecule encoding a fused chimeric protein as defined in claim 1.

22 (Previously Presented). A method of treating a mammal having at least one adenocarcinoma or hepatocarcinoma, comprising administering to said mammal in need thereof, an amount of a pharmaceutical composition, comprising a chimeric protein as claimed in claim 1, sufficient to ameliorate the effects of said adenocarcinoma or hepatocarcinoma.

23 (Previously Presented). A method of treating a mammal having endometriosis, comprising administering to said mammal in need thereof, an amount of a pharmaceutical composition, comprising a chimeric protein as claimed in claim 1, sufficient to ameliorate the effects of said endometriosis.

24 (Previously Presented). A method for endometrioma therapy according to claim 23, further comprising trans-cervical washing of the mammal's endometrial cavity.

25 (Previously Presented). A method of treating a mammal having a uterine myoma, comprising administering to said mammal in need thereof, an amount of a pharmaceutical composition, comprising a chimeric protein as claimed in claim 1, sufficient to ameliorate the effects of said uterine myoma.

26 (Previously Presented). A method of treating a mammal having a pituitary adenoma, comprising administering to said mammal in need thereof, an amount of a pharmaceutical composition, comprising a chimeric protein as claimed in claim 1, sufficient to ameliorate the effects of said pituitary adenoma.

27 (Previously Presented). A method of treating a mammal having BPH, comprising administering to said mammal in need thereof, an amount of a pharmaceutical composition, comprising a chimeric protein as claimed in claim 1, sufficient to ameliorate the effects of said BPH.

28 (Previously Presented). A method of treating a mammal having polycystic breast disease, comprising administering to said mammal in need thereof, an amount of a pharmaceutical composition, comprising a chimeric protein as claimed in claim 1, sufficient to ameliorate the effects of said polycystic breast disease.

29 (Cancelled)

30 (Previously Presented). A chimeric protein comprising a genetically engineered molecule comprising a fusion of -

at least one cell targeting moiety consisting essentially of gonadotropin releasing hormone (GnRH) preceded by a Met (Met-GnRH) or a Met-GnRH analog that specifically binds to GnRH binding sites on Caco2 adenocarcinoma; and

at least one cell killing moiety.

31 (Previously Presented). A fusion protein as claimed in claim 30, wherein said cell killing moiety comprises *Pseudomonas* exotoxin A.

32 (Previously Presented). A fusion protein as claimed in claim 30, that is a single protein.

33 (Previously Presented). A fusion protein as claimed in claim 30, that has no linking moiety between said cell killing moiety and said cell targeting moiety.

34 (Cancelled)

35 (Currently Amended). A fusion protein as claimed in claim ~~29~~30, wherein said chimeric protein recognizes and/or binds to GnRH-binding sites on adenocarcinoma and hepatocarcinoma cells.

36 (Currently Amended). A fusion protein as claimed in claim ~~29~~30, wherein said cell targeting moiety is a Met-GnRH analog having the sequence of Met-GnRH but having a glycine residue as the sixth amino acid of GnRH.